

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)	Examiner: Turner, Sharon L.
)	
Avi J. ASHKENAZI, et al.)	Art Unit: 1647
)	
Application Serial No. 09/978,193)	Confirmation No: 4687
)	
Filed: October 15, 2001)	Attorney's Docket No. 39780-2630 P1C6
)	
For: SECRETED AND)	Customer No. 35489
TRANSMEMBRANE)	
POLYPEPTIDES AND NUCLEIC)	
ACIDS ENCODING THE SAME)	

**DECLARATION OF NAPOLEONE FERRARA, Ph.D., AUDREY GODDARD, Ph.D.,
PAUL J. GODOWSKI, Ph.D., AUSTIN GURNEY, Ph.D.,
AND WILLIAM I. WOOD, Ph.D. UNDER 37 C.F.R. §1.131**

MAIL STOP AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

We, Napoleone Ferrara, Ph.D., Audrey Goddard, Ph.D., Paul J. Godowski, Ph.D., Austin Gurney, Ph.D., and William I. Wood, Ph.D. declare and say as follows:

1. We are the inventors of the above-identified application.
2. We have read and understood the claims pending in this application, and are aware that the claims have been rejected as anticipated by Ford *et al.*, U.S. Patent No. 6,392,018, filed February 12, 1999 and issued May 21, 2002.
3. We conceived and reduced to practice the invention claimed in the above-identified application in the United States prior to February 12, 1999.
4. At the time the present invention was made, one of the inventors, Napoleone Ferrara, Ph.D., was, as still is, responsible for overseeing the testing of novel polypeptides, including the polypeptide designated PRO320, in endothelial cell proliferation assay (Assay #9, Example 109). This assay is used to find agents that are capable of inhibiting proliferation of endothelial cells.

5. In this assay, bovine adrenal cortical capillary endothelial (ACE) cells (from primary culture, maximum 12-14 passages) were plated on 96 well plates at a density of 500 CELLS/WELL per 100 L in low glucose DMEM, 10% calf serum. 2 mM glutamine, 1x pen/strept and fungizone, supplemented with 3 ng/mL VEGF. Controls were plated the same way but some did not include VEGF. A test sample of the PRO polypeptide of interest was added in a 100 111 volume for a 200 UL FINAL VOLUME. Cells were incubated for 6-7 days at 37°C. The media was aspirated and the cells washed 1x with PBS. An acid phosphatase reaction mixture (100 YL, 0.1M sodium acetate, pH 5.5, 0.1 % TRITON-100, 10 mM p-nitrophenyl phosphate) was added. After incubation for 2 hours at 37°C, the reaction was stopped by addition of 10 JAL IN NaOH. OD was measured on microtiter plate reader at 405 nm. Controls were no cells, cells alone, cells + FGF (5 NG/ML), cells + VEGF (3 NG/ML), cells + VEGF (3 ng/ml) + TGF- β (1 ng/ml), and cells + VEGF (3ng/mL) + LIF (5 NG/ML). (TGF-P at a 1 ng/ml concentration is known to block 70-90% of VEGF stimulated cell proliferation.) The results were assessed by calculating the percentage inhibition of VEGF (3 ng/ml) stimulated cells proliferation, determined by measuring acid phosphatase activity at OD405 NM. (1) relative to cells without stimulation, and (2) relative to the reference TGF- β inhibition of VEGF stimulated activity. The results are indicative of the utility of the PRO polypeptides in cancer therapy and specifically in inhibiting tumor angiogenesis.

6. Copies of pages from laboratory notebook showing the positive results for the PRO320 polypeptide (SEQ ID NO:140), identified by Pin number P288-1, in Assay #9 are attached to this declaration (with dates redacted) as Exhibit A. These experiments were performed and the results were obtained prior to February 12, 1999.

7. Exhibit A clearly shows that the polypeptide designated PRO320 was tested, and its ability to inhibit the proliferation of endothelial cells was determined prior to February 12, 1999.

8. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.



Napoleone Ferrara

1/25/05

Date



Audrey Goddard

Jan. 3/05

Date

Paul J. Godowski

Date

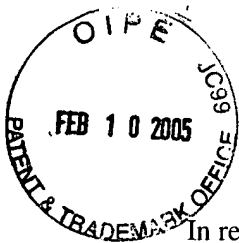
Austin Gurney

Date

William Wood, Ph.D.

Date

SV 2083165 v1
12/20/04 4:15 PM (39780.2630)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Avi J. ASHKENAZI, et al.

Application Serial No. 09/978,193

Filed: October 15, 2001

For: **SECRETED AND
TRANSMEMBRANE
POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME**

) Examiner: Turner, Sharon L.

) Art Unit: 1647

) Confirmation No: 4687

) Attorney's Docket No. 39780-2630 P1C6

) Customer No. 35489

**DECLARATION OF NAPOLEONE FERRARA, Ph.D., AUDREY GODDARD, Ph.D.,
PAUL J. GODOWSKI, Ph.D., AUSTIN GURNEY, Ph.D.,
AND WILLIAM I. WOOD, Ph.D. UNDER 37 C.F.R. §1.131**

MAIL STOP AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

We, Napoleone Ferrara, Ph.D., Audrey Goddard, Ph.D., Paul J. Godowski, Ph.D., Austin Gurney, Ph.D., and William I. Wood, Ph.D. declare and say as follows:

1. We are the inventors of the above-identified application.
2. We have read and understood the claims pending in this application, and are aware that the claims have been rejected as anticipated by Ford *et al.*, U.S. Patent No. 6,392,018, filed February 12, 1999 and issued May 21, 2002.
3. We conceived and reduced to practice the invention claimed in the above-identified application in the United States prior to February 12, 1999.
4. At the time the present invention was made, one of the inventors, Napoleone Ferrara, Ph.D., was, as still is, responsible for overseeing the testing of novel polypeptides, including the polypeptide designated PRO320, in endothelial cell proliferation assay (Assay #9, Example 109). This assay is used to find agents that are capable of inhibiting proliferation of endothelial cells.

5. In this assay, bovine adrenal cortical capillary endothelial (ACE) cells (from primary culture, maximum 12-14 passages) were plated on 96 well plates at a density of 500 CELLS/WELL per 100 L in low glucose DMEM, 10% calf serum. 2 mM glutamine, 1x pen/strept and fungizone, supplemented with 3 ng/mL VEGF. Controls were plated the same way but some did not include VEGF. A test sample of the PRO polypeptide of interest was added in a 100 111 volume for a 200 UL FINAL VOLUME. Cells were incubated for 6-7 days at 37°C. The media was aspirated and the cells washed 1x with PBS. An acid phosphatase reaction mixture (100 YL, 0.1M sodium acetate, pH 5.5, 0.1 % TRITON-100, 10 mM p-nitrophenyl phosphate) was added. After incubation for 2 hours at 37°C, the reaction was stopped by addition of 10 JAL IN NaOH. OD was measured on microtiter plate reader at 405 nm. Controls were no cells, cells alone, cells + FGF (5 NG/ML), cells + VEGF (3 NG/ML), cells + VEGF (3 ng/ml) + TGF- β (1 ng/ml), and cells + VEGF (3ng/mL) + LIF (5 NG/ML). (TGF-P at a 1 ng/ml concentration is known to block 70-90% of VEGF stimulated cell proliferation.) The results were assessed by calculating the percentage inhibition of VEGF (3 ng/ml) stimulated cells proliferation, determined by measuring acid phosphatase activity at OD405 NM. (1) relative to cells without stimulation, and (2) relative to the reference TGF- β inhibition of VEGF stimulated activity. The results are indicative of the utility of the PRO polypeptides in cancer therapy and specifically in inhibiting tumor angiogenesis.

6. Copies of pages from laboratory notebook showing the positive results for the PRO320 polypeptide (SEQ ID NO:140), identified by Pin number P288-1, in Assay #9 are attached to this declaration (with dates redacted) as Exhibit A. These experiments were performed and the results were obtained prior to February 12, 1999.

7. Exhibit A clearly shows that the polypeptide designated PRO320 was tested, and its ability to inhibit the proliferation of endothelial cells was determined prior to February 12, 1999.

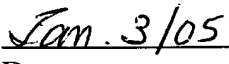
8. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Napoleone Ferrara

Date



Audrey Goddard



Date

Paul J. Godowski

Date

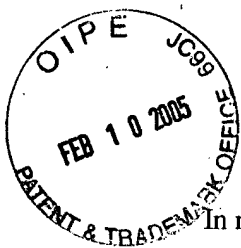
Austin Gurney

Date

William Wood, Ph.D.

Date

SV 2083165 v1
12/20/04 4:15 PM (39780.2630)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Avi J. ASHKENAZI, et al.

Application Serial No. 09/978,193

Filed: October 15, 2001

For: **SECRETED AND
TRANSMEMBRANE
POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME**

) Examiner: Turner, Sharon L.

) Art Unit: 1647

) Confirmation No: 4687

) Attorney's Docket No. 39780-2630 P1C6

) Customer No. 35489

**DECLARATION OF NAPOLEONE FERRARA, Ph.D., AUDREY GODDARD, Ph.D.,
PAUL J. GODOWSKI, Ph.D., AUSTIN GURNEY, Ph.D.,
AND WILLIAM I. WOOD, Ph.D. UNDER 37 C.F.R. §1.131**

MAIL STOP AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

We, Napoleone Ferrara, Ph.D., Audrey Goddard, Ph.D., Paul J. Godowski, Ph.D., Austin Gurney, Ph.D., and William I. Wood, Ph.D. declare and say as follows:

1. We are the inventors of the above-identified application.
2. We have read and understood the claims pending in this application, and are aware that the claims have been rejected as anticipated by Ford *et al.*, U.S. Patent No. 6,392,018, filed February 12, 1999 and issued May 21, 2002.
3. We conceived and reduced to practice the invention claimed in the above-identified application in the United States prior to February 12, 1999.
4. At the time the present invention was made, one of the inventors, Napoleone Ferrara, Ph.D., was, as still is, responsible for overseeing the testing of novel polypeptides, including the polypeptide designated PRO320, in endothelial cell proliferation assay (Assay #9, Example 109). This assay is used to find agents that are capable of inhibiting proliferation of endothelial cells.

5. In this assay, bovine adrenal cortical capillary endothelial (ACE) cells (from primary culture, maximum 12-14 passages) were plated on 96 well plates at a density of 500 CELLS/WELL per 100 L in low glucose DMEM, 10% calf serum. 2 mM glutamine, 1x pen/strept and fungizone, supplemented with 3 ng/mL VEGF. Controls were plated the same way but some did not include VEGF. A test sample of the PRO polypeptide of interest was added in a 100 111 volume for a 200 UL FINAL VOLUME. Cells were incubated for 6-7 days at 37°C. The media was aspirated and the cells washed 1x with PBS. An acid phosphatase reaction mixture (100 YL, 0.1M sodium acetate, pH 5.5, 0.1 % TRITON-100, 10 mM p-nitrophenyl phosphate) was added. After incubation for 2 hours at 37°C, the reaction was stopped by addition of 10 JAL IN NaOH. OD was measured on microtiter plate reader at 405 nm. Controls were no cells, cells alone, cells + FGF (5 NG/ML), cells + VEGF (3 NG/ML), cells + VEGF (3 ng/ml) + TGF-β (1 ng/ml), and cells + VEGF (3ng/mL) + LIF (5 NG/ML). (TGF-P at a 1 ng/ml concentration is known to block 70-90% of VEGF stimulated cell proliferation.) The results were assessed by calculating the percentage inhibition of VEGF (3 ng/ml) stimulated cells proliferation, determined by measuring acid phosphatase activity at OD405 NM. (1) relative to cells without stimulation, and (2) relative to the reference TGF-β inhibition of VEGF stimulated activity. The results are indicative of the utility of the PRO polypeptides in cancer therapy and specifically in inhibiting tumor angiogenesis.

6. Copies of pages from laboratory notebook showing the positive results for the PRO320 polypeptide (SEQ ID NO:140), identified by Pin number P288-1, in Assay #9 are attached to this declaration (with dates redacted) as Exhibit A. These experiments were performed and the results were obtained prior to February 12, 1999.

7. Exhibit A clearly shows that the polypeptide designated PRO320 was tested, and its ability to inhibit the proliferation of endothelial cells was determined prior to February 12, 1999.

8. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Napoleone Ferrara

Date

A. Goddard

Audrey Goddard

Jan. 3/05

Date

Paul J. Godowski

Paul J. Godowski

1/25/05

Date

Austin Gurney

Date

William Wood, Ph.D.

Date

SV 2083165 v1
12/20/04 4:15 PM (39780.2630)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)	Examiner: Turner, Sharon L.
)	
Avi J. ASHKENAZI, et al.)	Art Unit: 1647
)	
Application Serial No. 09/978,193)	Confirmation No: 4687
)	
Filed: October 15, 2001)	Attorney's Docket No. 39780-2630 P1C6
)	
For: SECRETED AND)	Customer No. 35489
TRANSMEMBRANE)	
POLYPEPTIDES AND NUCLEIC)	
ACIDS ENCODING THE SAME)	

DECLARATION OF NAPOLEONE FERRARA, Ph.D., AUDREY GODDARD, Ph.D.,
PAUL J. GODOWSKI, Ph.D., AUSTIN GURNEY, Ph.D.,
AND WILLIAM I. WOOD, Ph.D. UNDER 37 C.F.R. §1.131

MAIL STOP AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

We, Napoleone Ferrara, Ph.D., Audrey Goddard, Ph.D., Paul J. Godowski, Ph.D., Austin Gurney, Ph.D., and William I. Wood, Ph.D. declare and say as follows:

1. We are the inventors of the above-identified application.
2. We have read and understood the claims pending in this application, and are aware that the claims have been rejected as anticipated by Ford *et al.*, U.S. Patent No. 6,392,018, filed February 12, 1999 and issued May 21, 2002.
3. We conceived and reduced to practice the invention claimed in the above-identified application in the United States prior to February 12, 1999.
4. At the time the present invention was made, one of the inventors, Napoleone Ferrara, Ph.D., was, as still is, responsible for overseeing the testing of novel polypeptides, including the polypeptide designated PRO320, in endothelial cell proliferation assay (Assay #9, Example 109). This assay is used to find agents that are capable of inhibiting proliferation of endothelial cells.

5. In this assay, bovine adrenal cortical capillary endothelial (ACE) cells (from primary culture, maximum 12-14 passages) were plated on 96 well plates at a density of 500 CELLS/WELL per 100 L in low glucose DMEM, 10% calf serum. 2 mM glutamine, 1x pen/strept and fungizone, supplemented with 3 ng/mL VEGF. Controls were plated the same way but some did not include VEGF. A test sample of the PRO polypeptide of interest was added in a 100 111 volume for a 200 UL FINAL VOLUME. Cells were incubated for 6-7 days at 37°C. The media was aspirated and the cells washed 1x with PBS. An acid phosphatase reaction mixture (100 YL, 0.1M sodium acetate, pH 5.5, 0.1 % TRITON-100, 10 mM p-nitrophenyl phosphate) was added. After incubation for 2 hours at 37°C, the reaction was stopped by addition of 10 JAL IN NaOH. OD was measured on microtiter plate reader at 405 nm. Controls were no cells, cells alone, cells + FGF (5 NG/ML), cells + VEGF (3 NG/ML), cells + VEGF (3 ng/ml) + TGF- β (1 ng/ml), and cells + VEGF (3ng/mL) + LIF (5 NG/ML). (TGF-P at a 1 ng/ml concentration is known to block 70-90% of VEGF stimulated cell proliferation.) The results were assessed by calculating the percentage inhibition of VEGF (3 ng/ml) stimulated cells proliferation, determined by measuring acid phosphatase activity at OD405 NM. (1) relative to cells without stimulation, and (2) relative to the reference TGF- β inhibition of VEGF stimulated activity. The results are indicative of the utility of the PRO polypeptides in cancer therapy and specifically in inhibiting tumor angiogenesis.

6. Copies of pages from laboratory notebook showing the positive results for the PRO320 polypeptide (SEQ ID NO:140), identified by Pin number P288-1, in Assay #9 are attached to this declaration (with dates redacted) as Exhibit A. These experiments were performed and the results were obtained prior to February 12, 1999.

7. Exhibit A clearly shows that the polypeptide designated PRO320 was tested, and its ability to inhibit the proliferation of endothelial cells was determined prior to February 12, 1999.

8. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Napoleone Ferrara

Date

Audrey Goddard

Date

Paul J. Godowski

Date



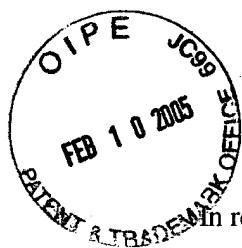
Austin Gurney

7/1/05
Date

William Wood, Ph.D.

Date

SV 2083165 v1
1/28/05 5:19 PM (39780.2630)



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Avi J. ASHKENAZI, et al.

Application Serial No. 09/978,193

Filed: October 15, 2001

For: **SECRETED AND
TRANSMEMBRANE
POLYPEPTIDES AND NUCLEIC
ACIDS ENCODING THE SAME**

) Examiner: Turner, Sharon L.

) Art Unit: 1647

) Confirmation No: 4687

) Attorney's Docket No. 39780-2630 P1C6

) Customer No. 35489

**DECLARATION OF NAPOLEONE FERRARA, Ph.D., AUDREY GODDARD, Ph.D.,
PAUL J. GODOWSKI, Ph.D., AUSTIN GURNEY, Ph.D.,
AND WILLIAM I. WOOD, Ph.D. UNDER 37 C.F.R. §1.131**

MAIL STOP AMENDMENT

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

We, Napoleone Ferrara, Ph.D., Audrey Goddard, Ph.D., Paul J. Godowski, Ph.D., Austin Gurney, Ph.D., and William I. Wood, Ph.D. declare and say as follows:

1. We are the inventors of the above-identified application.
2. We have read and understood the claims pending in this application, and are aware that the claims have been rejected as anticipated by Ford *et al.*, U.S. Patent No. 6,392,018, filed February 12, 1999 and issued May 21, 2002.
3. We conceived and reduced to practice the invention claimed in the above-identified application in the United States prior to February 12, 1999.
4. At the time the present invention was made, one of the inventors, Napoleone Ferrara, Ph.D., was, as still is, responsible for overseeing the testing of novel polypeptides, including the polypeptide designated PRO320, in endothelial cell proliferation assay (Assay #9, Example 109). This assay is used to find agents that are capable of inhibiting proliferation of endothelial cells.

5. In this assay, bovine adrenal cortical capillary endothelial (ACE) cells (from primary culture, maximum 12-14 passages) were plated on 96 well plates at a density of 500 CELLS/WELL per 100 L in low glucose DMEM, 10% calf serum. 2 mM glutamine, 1x pen/strept and fungizone, supplemented with 3 ng/mL VEGF. Controls were plated the same way but some did not include VEGF. A test sample of the PRO polypeptide of interest was added in a 100 111 volume for a 200 UL FINAL VOLUME. Cells were incubated for 6-7 days at 37°C. The media was aspirated and the cells washed 1x with PBS. An acid phosphatase reaction mixture (100 YL, 0.1M sodium acetate, pH 5.5, 0.1 % TRITON-100, 10 mM p-nitrophenyl phosphate) was added. After incubation for 2 hours at 37°C, the reaction was stopped by addition of 10 JAL IN NaOH. OD was measured on microtiter plate reader at 405 nm. Controls were no cells, cells alone, cells + FGF (5 NG/ML), cells + VEGF (3 NG/ML), cells + VEGF (3 ng/ml) + TGF- β (1 ng/ml), and cells + VEGF (3ng/mL) + LIF (5 NG/ML). (TGF-P at a 1 ng/ml concentration is known to block 70-90% of VEGF stimulated cell proliferation.) The results were assessed by calculating the percentage inhibition of VEGF (3 ng/ml) stimulated cells proliferation, determined by measuring acid phosphatase activity at OD405 NM. (1) relative to cells without stimulation, and (2) relative to the reference TGF- β inhibition of VEGF stimulated activity. The results are indicative of the utility of the PRO polypeptides in cancer therapy and specifically in inhibiting tumor angiogenesis.

6. Copies of pages from laboratory notebook showing the positive results for the PRO320 polypeptide (SEQ ID NO:140), identified by Pin number P288-1, in Assay #9 are attached to this declaration (with dates redacted) as Exhibit A. These experiments were performed and the results were obtained prior to February 12, 1999.

7. Exhibit A clearly shows that the polypeptide designated PRO320 was tested, and its ability to inhibit the proliferation of endothelial cells was determined prior to February 12, 1999.

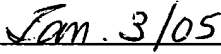
8. We hereby declare that all statements made herein of our own knowledge are true and that all statements made on information or belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful statements may jeopardize the validity of the application or any patent issued thereon.

Napoleone Ferrara

Date



Audrey Goddard




Date

Paul J. Godowski

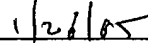
Date

Austin Gurney

Date



William Wood, Ph.D.



Date

SV 2083165 v1
12/20/04 4:15 PM (39780.2630)